CLAIMS

WHAT IS CLAIMED IS:

1. An integrated vehicle information communication system that provides both vehicular and highway infrastructure information to both vehicle occupants, and a surrounding highway infrastructure, comprising:

an antenna for receiving and transmitting data from internal and external sources;

a sub-processor module for processing the data from the antenna and conveying the data to further processing;

a user interface system for interfacing the data received from the sub-processor module with the vehicle occupants; and

a communications medium for conveying data throughout the system.

2. The system according to claim 1, wherein the antenna is located in the windshield of the vehicle.

3. The system according to claim 1, wherein the sub-processor module includes a communications sub-processor for processing the data from the antenna and integrating with a vehicle bus.

4. The system according to claim 1, wherein the external sources include at least one of a messaging module, an identification receiver module, an external communications module, a payment module, and a radio frequency front end module.

5. The system according to claim 1, wherein the user interface system includes at least one of a dashboard display module, a heads-up display module, a speech recognition system module, and an audio interface module.

6. The system according to claim 1, wherein the communications medium includes a wireless technology.

7. The system according to claim 6, wherein the wireless technology includes radio frequency technology.

8. The system according to claim 6, wherein the wireless technology includes Bluetooth technology.

9. The system according to claim 1, wherein the communications medium is hard-wired.

10. A method for providing two-way communications of highway infrastructure and vehicular status information between occupants of a vehicle and a highway infrastructure, said method comprising:

providing an antenna on a vehicle;

receiving data from external sources in the highway infrastructure;

transmitting the data to a communications sub-processor for internal processing;

processing the data using the communications sub-processor and conveying processed data to a vehicle data bus; and

communicating the processed data along the vehicle data bus via a wireless communications medium to a user interface system.

11. The method of claim 10, further comprising receiving data from internal sources.

12. The method of claim 10, further comprising transmitting the processed data to the highway infrastructure.

13. The method of claim 10, wherein the wireless communications medium includes radio frequency technology.

14. The method of claim 10, wherein the wireless communications medium includes Bluetooth technology.

15. The method of claim 10, further comprising conveying the processed data to a vehicle engine control processor.

16. The method of claim 10, wherein the user interface system includes at least one of a dashboard display module, a heads-up display module, a speech recognition system module, and an audio interface module.